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***Vararia longicystidiata* sp. nov. (Agaricomycetes) from India**

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ABSTRACT – A new corticioid species, *Vararia longicystidiata*, is described on decaying wood of *Quercus incana* from Uttarakhand state in India.

KEY WORDS – *Basidiomycota*, Chaurangi Khal, Uttarakashi

While conducting fungal forays in Chaurangi Khal area of district Uttarakashi, Uttarakhand (India), Samita collected an unknown corticioid fungus on decaying wood of *Quercus incana*. The presence of dichohyphidia and inamyloid smooth basidiospores indicated that the species belonged to *Vararia*, but it could not be assigned to any previously described species (Welden 1965, Parmasto 1970, Boidin & Lanquetin 1976, Rattan 1977, Boidin et al. 1980, Hallenberg & Eriksson 1985, Pegler & Young 1993). A detailed description of the specimen along with the microphotographs and line diagrams was sent to Prof. Nils Hallenberg (Sweden), who supported the description of a new species in the genus *Vararia*.

***Vararia longicystidiata* Samita, Sanyal, Dhingra & Avneet P. Singh, sp. nov.**

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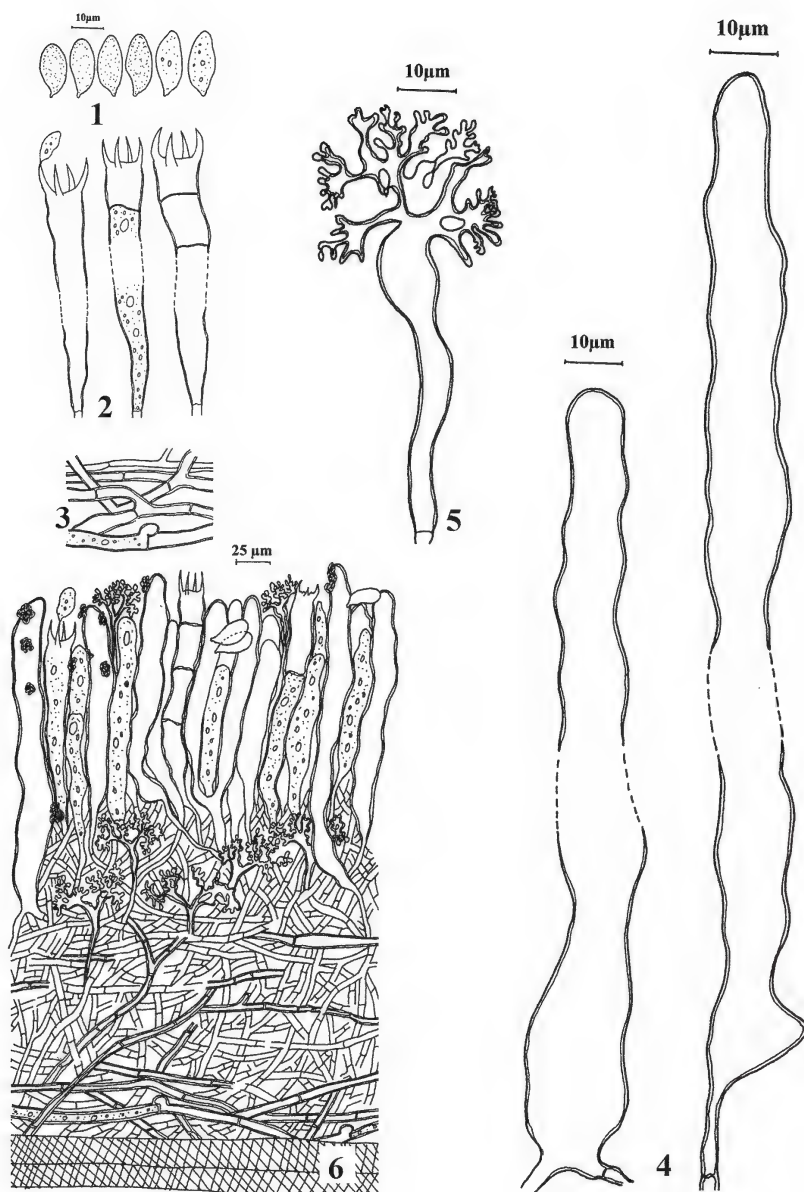
FIGS 1–7

Differs from *Vararia gomezii* in its larger cystidia, basidia, and basidiospores.

TYPE: India, Uttarakhand: Uttarakashi, Chaurangi Khal, on decaying wood of *Quercus incana* Bartram, 29 September 2011, Samita 4413 (PUN, **holotype**).

ETYMOLOGY: The epithet refers to the long cylindrical cystidia.

Basidiocarp resupinate, adnate, effused, up to 230 µm thick in section, hymenial surface smooth to somewhat tuberculate, light orange; margins thinning, fibrillose, paler concolorous to whitish. Hyphal system monomitic; generative hyphae up to 5.5 µm wide, branched, septate, generally without clamps; basal hyphae loosely arranged, more or less parallel to the substrate, interspersed with some thick-walled hyphae with oily contents, some cells



FIGS 1–6. *Vararia longicystidiata*, microscopic structures.
 1. Basidiospores; 2. basidia; 3. generative hyphae; 4. cystidia;
 5. dichohyphidia; 6. section through basidiocarp.

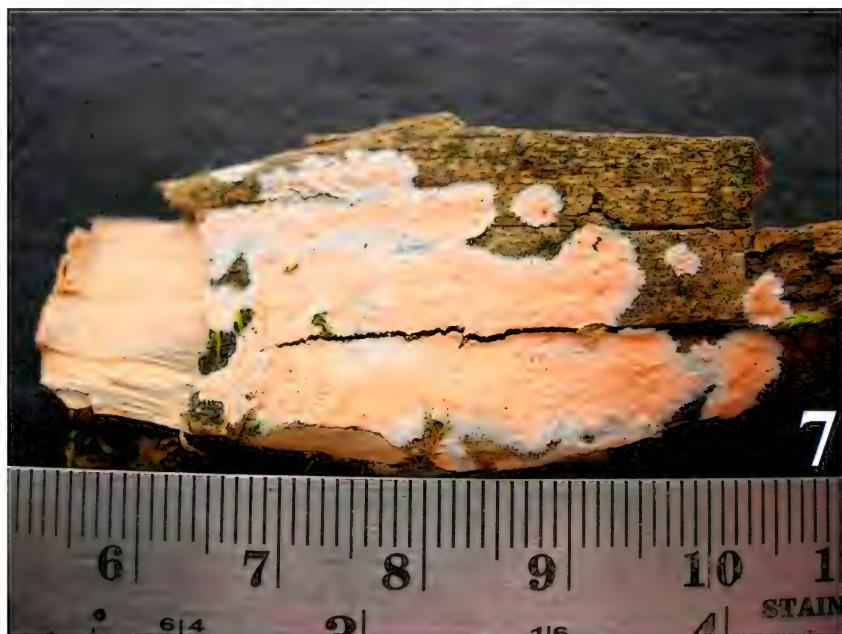


FIG. 7. *Vararia longicystidiata*, basidiocarp (holotype).

inflated; subhymenial hyphae vertical, compactly arranged. Dichohyphidia more common in subhymenium than hymenium, abundant, coralloid, branches irregular with blunt endings, dextrinoid. Cystidia $100.0\text{--}188.0 \times 8.8\text{--}17.5 \mu\text{m}$, abundant, subcylindrical to sinuous, thick-walled, without basal clamp, negative to sulphovanillin. Basidia $70.0\text{--}110.0 \times 9.0\text{--}13.0 \mu\text{m}$, clavate, 4-sterigmate, frequently with secondary septa, without basal clamp, with or without oily contents; sterigmata up to $12.5 \mu\text{m}$ long; basidioles rich in oily contents. Basidiospores $15.0\text{--}20.0 \times 6.0\text{--}7.5 \mu\text{m}$, sub-fusiform to navicular, with numerous oil-drops, thin- to somewhat thick-walled, inamyloid, acyanophilous.

REMARKS—*Vararia longicystidiata* resembles *V. gomezii* Boidin. & Lanq. (reported from South America and Africa) in having similar basidiocarps and basidiospore shape. However, *V. gomezii* differs in having ovoid unthickened cystidia ($14\text{--}50 \times 8\text{--}14 \mu\text{m}$), smaller basidia ($34.0\text{--}45.0 \times 7.5$), and smaller basidiospores ($13.0\text{--}14.8 \times 4.8\text{--}6.25 \mu\text{m}$; Boidin and Lanquetin; 1977).

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Literature cited

- Boidin J, Lanquetin P. 1976 ["1975"]. *Vararia* subgenus *Vararia* (Basidiomycètes *Lachnocladiaceae*): étude spéciale des espèces d'Afrique intertropicale. Bull. Soc. Mycol. France 91(4): 457–513.
- Boidin J, Lanquetin P. 1977. Les genres *Dichostereum* et *Vararia* en Guadeloupe (*Basidiomycetes, Lachnocladiaceae*). Mycotaxon 6: 277–336
- Boidin J, Lanquetin P, Gilles G. 1980. Application du concept biologique de l'espèce aux basidiomycètes: le genre *Vararia* (section *Vararia*) au Gabon. Cryptog. Mycol. 1: 265–384.
- Hallenberg N, Eriksson J. 1985. The *Lachnocladiaceae* and *Coniophoraceae* of North Europe. Fungiflora, Oslo. pp. 1–96.
- Pegler DN, Young TWK. 1993. Basidiome structure in *Lachnodiales* sensu lato. Kew Bulletin 48: 37–52.
- Parmasto E. 1970. The *Lachnocladiaceae* of the Soviet Union with a key to boreal species. Scripta Mycologica 2: 1–168
- Rattan SS. 1977. The resupinate *Aphylophorales* of the northwestern Himalayas. Bibliotheca Mycologica 60: 1–427.
- Welden AL. 1965. West Indian species of *Vararia* with notes on extralimital species. Mycologia 57: 502–520.